LWR CERT Radio Comm (Communications)

- Nomenclature
- New Radios
- New Comm system
- Radio Operation
- Effective Comm

Nomenclature

- Our portable radios are called HTs (Handheld Transceivers) -Transmitter/Receivers
- Our Midland HTs have FRS channels and GMRS channels
- FRS power is 1/2 watt - limited to about 1 mile radius, open terrain - OK for intra-team
- The GMRS channels have 5 watts but require an FCC license costing $85. per user- too expensive

New Radios

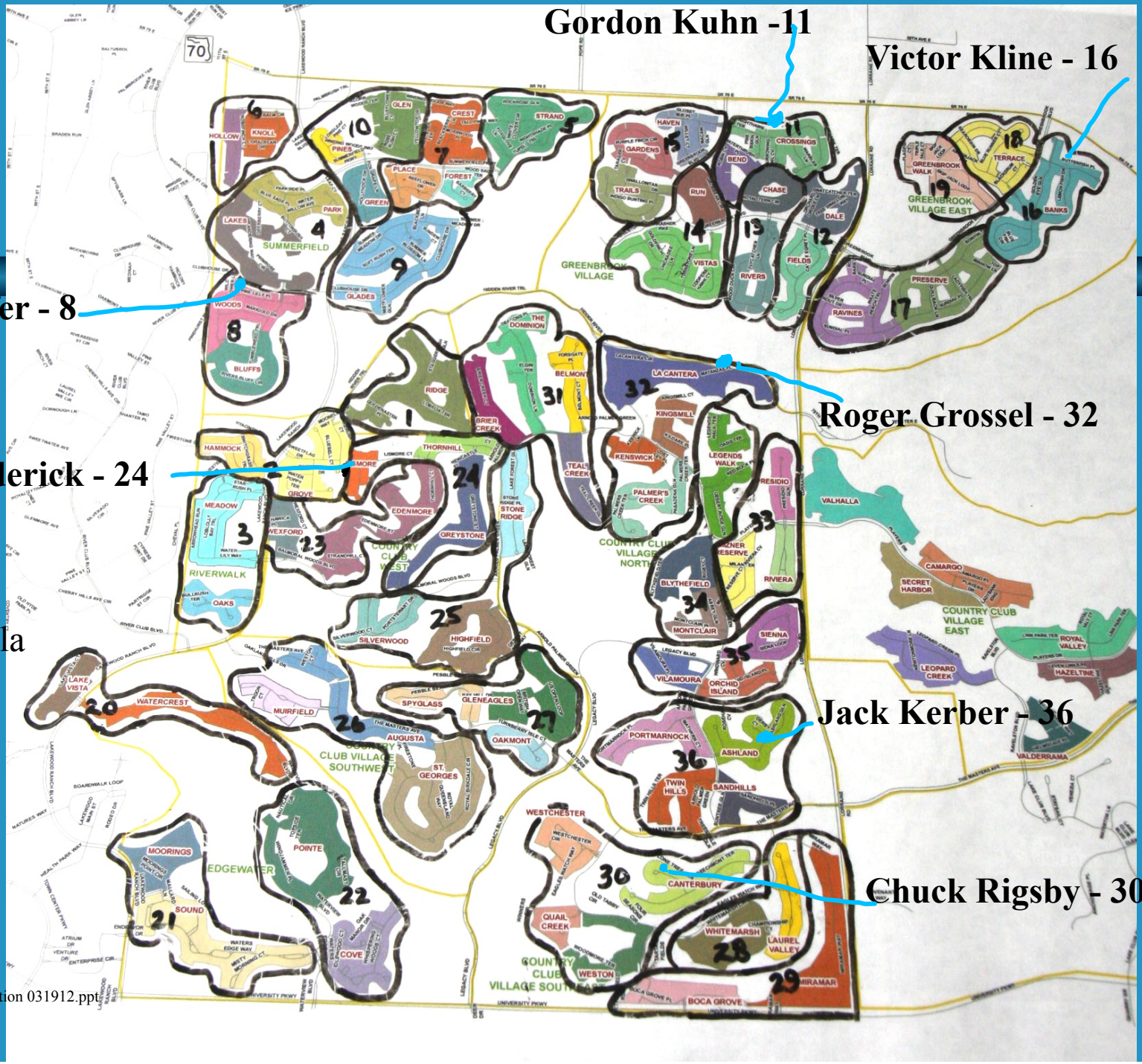
- Team members will use the Midland HT FRS (assigned) channels for intra-team comm
- We procured new HTs & an FCC license for comm between team leaders & "radio central".
- Not a "ham" radio. Any CERT volunteer can transmit
- The new HTs are similar in operation to the Midland FRS HTs but at 5 watts have a range up to four miles.

Radio Range Factors

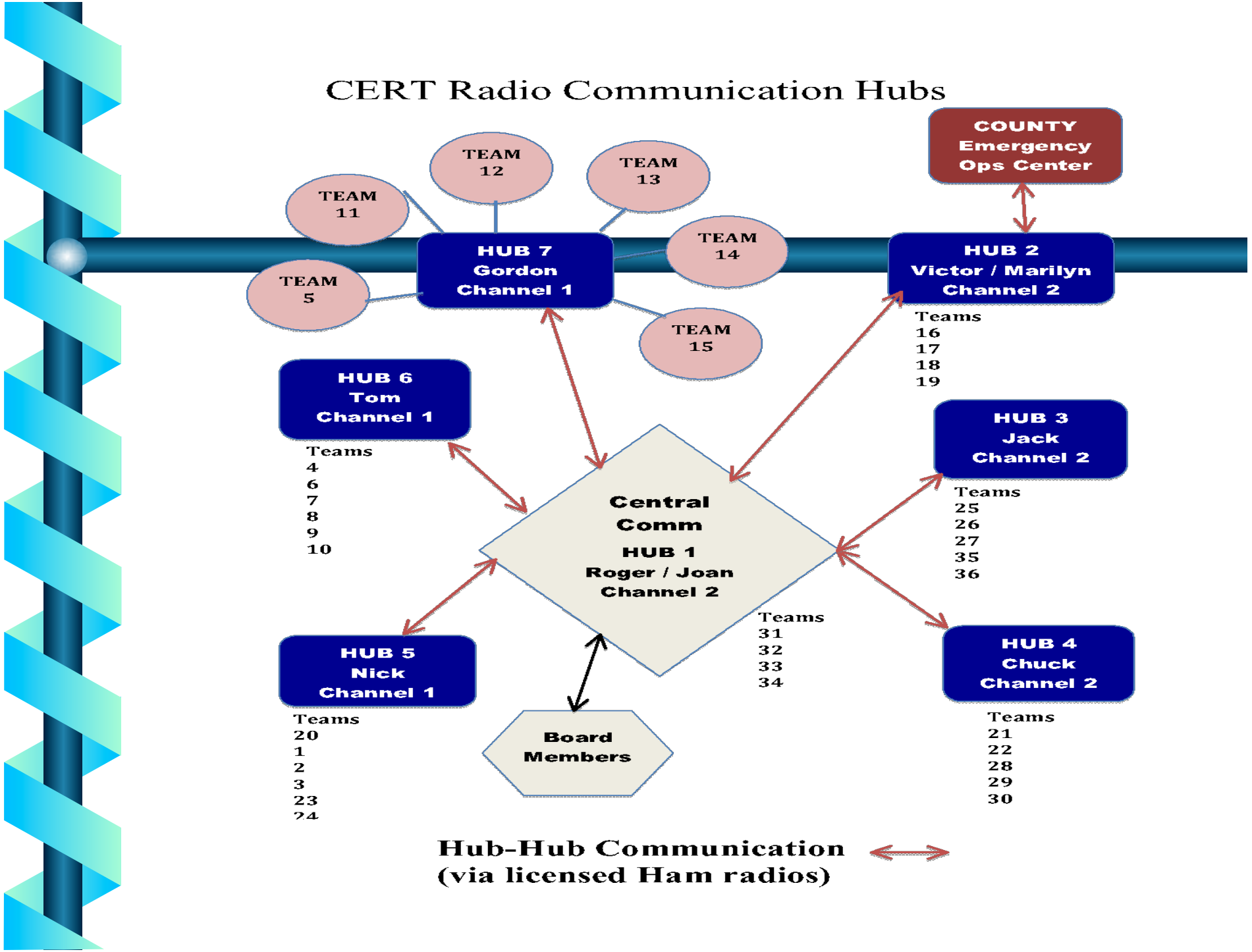
- Power
  - Caution! Too much power in an HT can be a radiation hazard
- Antenna: height, gain, directionality, polarization
- Terrain & Intervening Objects
- Frequency

New Comm System

- We have replaced “radio central” with “ham central”, i.e. our seven hams will each serve as a “hub” for several teams (map)
- E.g., team leaders for teams 5, 11, 12, 13, 14 & 15 will comm with Gordon Kuhn
- The hams will comm with a similar new radio and one or two hams will comm with the EOC. Hams have external antennas


Gordon Kuhn -11
Victor Kline - 16
Tom Cofer - 8
Roger Grossel - 32
Nick Frederick - 24
Bruce Domenella (River Club)
Jack Kerber - 36
Chuck Rigsby - 30
70
GREENBROOK VILLAGE
GREENBROOK VILLAGE EAST
SUMMERFIELD
COUNTRY CLUB VILLAGE NORTH
COUNTRY CLUB VILLAGE EAST
COUNTRY CLUB VILLAGE SOUTHWEST
COUNTRY CLUB VILLAGE SOUTH
EDGEWATER
RIVERWALK
VALDERRAMA

CERT Radio Communication Hubs



Hub-Hub Communication ↔
(via licensed Ham radios)

Team Radio & Accessories

- Radio - Wouxun KG-UVA1 -"Commercial"
- Lithium-ion battery - Detachable -Latches
- Antenna - Attach before powering up!
- Charger
- Belt clip
- AA Battery pack - Backup
- User's manual

Radio Operation (1)

- Mic & Speaker - Front of radio
- Knobs: (1) On/Off & volume;
- (2) Tuning - rotate to select channel
- Green light:
  - # Flashes ----> Battery level (charge at 2 or 3)
  - Lights when receiver detects a signal
- Red light: Lights when transmitting

Radio Operation (2)

- Push-to-talk (PTT) - Similar to Midland
- Verify - Listen and look for a busy channel before talking. Prevent "front end overload"
- Button below PTT - Inactive
- Next lower button -
  - Push briefly for light
  - Long Press: Monitor (receive)
- Mic/speaker jacks - Right side of radio

Team Radio Channels (VHF)

Channel	Frequency	CTCSS
1	159.855 MHz	OFF
2	159.885	OFF
10	159.855	67
11	159.885	67

- Normally you will use either channel 1 or 2
- Your ham hub may temporarily redirect you to 10 or 11

Effective Comm

- Antenna vertical - do not shield with body
- Normal voice; speak"across" mike
- Comm Precedence:
  - Emergency: Life & death (or property) urgency
  - Priority: Needing a specific response time
  - Routine: Normal traffic - lowest priority
- Verify an open channel; PTT; keep message concise, 30 sec max --**Listen** more than talk

Sample Routine Message

- TL 25 (After verifying an open channel):
  - Hub 4, this is team 25 with a routine message, over.
- Hub 4: Team 25, send your message, over.
- TL25:
- Hub 4, this is team 25 reporting that we have assembled our team at the assembly area and have nothing more to report at this time, over.
- Hub 4: Team 25, this is Hub 4. Copy. Out